



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,764	09/29/2006	Hitoshi Hata	297119US0PCT	6726
22850	7590	09/18/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER OLADAPO, TAIWO	
			ART UNIT	PAPER NUMBER
			1797	
			NOTIFICATION DATE	DELIVERY MODE
			09/18/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/594,764	<b>Applicant(s)</b> HATA ET AL.	
	<b>Examiner</b> TAIWO OLADAPO	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/28/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 6, 8 – 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Tipton (US 6,372,696).

3. In regards to claims 1, 2, Tipton teaches lubricating automotive traction fluids such as in automatic or continuously variable transmissions (CVT) (column 1 lines 4 - 17) comprising a base oil of polymers such as dimers, trimers, tetramers of norbornanes (column 3 lines 8 – 22). As the base oil of Tipton has a similar composition to base oils taught by applicant to meet the cohesive energy density limitation, the base oil of Tipton is considered to possess the cohesive energy density value recited in claims 1, 2 (see applicants specification, page 9 lines 3 – 20).

Tipton teaches that the lubricant has kinematic viscosities at 40°C in a range that anticipates the limitations of claim 1 (see column 19 & 20 table). Tipton also teaches the lubricant contains phosphoric esters, thiophosphate esters having thioether bonds (column 14 lines 5 – 11). The compound having the formula  $(R^1X)(R^2X)P(X_n)X_mR^3$  is a phosphate ester having X groups that are independently oxygen or sulfur atom, thus forming thioether bonds.

4. In regards to claim 3, Tipton teaches the lubricating oil containing groups such as dimers, trimers or tetramers of norbornanes as previously stated.

Art Unit: 1797

5. In regards to claim 4, Tipton teaches the lubricant, wherein the phosphate esters are compounds of formula II in the claim, such that A is a hydroxyl group, r is 0, and R<sup>7</sup> and R<sup>8</sup> are respectively a hydrogen atom (column 14 lines 5 – 30: see compounds).

6. In regards to claim 5, Tipton teaches the lubricant, wherein the phosphate esters are amine salts (column 15 line 32). Tipton teaches that the phosphate esters can have hydrocarbon groups such as alkyls i.e., decyl, t-butyl, or isobutyl, which are groups having between 3 and 12 carbons (column 14 lines 45 – 60).

7. In regards to claim 6, Tipton teaches the lubricant having overbased calcium sulfonate (column 21 table). Tipton teaches that the overbased compounds have base values (mg KOH/g) of preferably 100 and up to preferably 400 (column 8 lines 28 – 41).

8. In regards to claim 8 – 10, Tipton teaches the lubricating oil composition for continuously variable transmission comprising the limitations of claim 1 as previously stated. The fluid is therefore suitable for the intended use as metallic belt, traction drive, or chain type CVT lubricant according to the instant invention.

The claims are product claims that are drawn to a composition of matter and therefore statements of intended use do not carry any patentable weight. Since the reference teaches the compositional limitations, it anticipates claims 8 – 10.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 1797

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tipton (US 6,372,696) in view of Conary et al. (US 6,096,691)

13. In regards to claim 7, Tipton teaches the lubricating oil composition for continuously variable transmissions. Tipton teaches that the lubricating oil containing optional additives such as antiwear (column 21 line 25) but does not particularly recite a sulfur antiwear.

Conary teaches gear oil additives and lubricants containing them (Title) similar to the invention of Tipton. Conary teaches that the additives can be, i.e. sulfur antiwear (column 1 line 35; column 17 lines 10 – 12).

Art Unit: 1797

It would have been obvious to one of ordinary skill in the art at the time of the invention to have used sulfur antiwear additives in the composition according to Tipton, as Conary teaches it is a suitable antiwear additive for transmission or gear lubricating oils.

### ***Conclusion***

14. The International search report dated 12/28/2006 provides 6 X references, however these references were not used for rejection of the instant claims at this time since the reference by Tipton, which is a US based application of one of the references, seems to better reflect the claimed inventions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAIWO OLADAPO whose telephone number is (571)270-3723. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571)272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1797

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TO

/Glenn A Caldarola/  
Acting SPE of Art Unit 1797